TIMELINEZ

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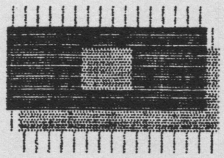
CONTENTS:

VIEW FROM RAMTOP



Sometimes I wonder how many TIMEX users would like to enter the world of laptops, but "due to the lack of finances beyond control", they can't. This was a similiar situation I faced last December while vacationing in Florida. During the holiday shopping spree, I stumbled across a cute little laptop titled the PC-3 manufactured by Laser Computer, Inc. This marvelously small laptop (in my opinion) is an economy version of the 288 computer by Cambridge. Here are the standard features and specifications:

* 280 Processor
* 32,000 Character Memory
* 2 Line Display, 20 Characters Per Line
* Expansion Slot
* Centronics Parallel Interface
* Serial Interface
* Cassette Interface
* Full-Travel Keyboard

Software:

* System Utilities
* File Transfer To Personal Computers
* Powerful Word Processor
* 80,000 Word Spelling Checker
* Telephone Directory
* Expense Account Module
* Appointment Book
* Personal File
* 4 Function Calculator With Memory
* Alarm Clock With 4 Alarms
* Automatic Telephone Dialer
* Typing Tutor

Accessories:

* Carrying Case
* Parallel Printer Cable
* File Transfer Cable

Power Requirments:

* 4 "AA" Batteries or AC Adapter

Dimensions & Weight:

* 1 lb. 9 ozs.
* 7.6" x 10" x 1.3"

Furthermore, there is a 1 minute automatic shut-off with a "beep" indicator for power conservation, a visual warning when the charge in the batteries run low (the PC-3 retains enough power to permit you to change batteries without erasing data in memory), and the ability to link up to either a PC/Clone or a Macintosh.

The total cost was only $159.95 plus tax at Sears (the PC-3 is not in the catalog). Thereare a few optional accessories like the Roget's II Electronic Theasaurus that gives 500,000 synonyms with 42,000 keywords, a BASIC language cartridge, an AC adapter, plus more.

This summer, Laser plans to release the PC-4. This upgraded laptop computer utilizes all the same internal firmware (exept the Typing Tutor) as the PC-3 but with these following additions:

* 280 CMOS Processor Operating at 3.58 MHz
* 32K SRAM
* 2 MB ROM Storing Programs and Dictionary
* High Contrast STN Blue LCD Screen
* 4 Line Display, 40 Characters Per Line
* Redesigned Full-Travel Keyboard
* AC Adapter
* Lotus-Compatible Spreadsheet
* Advanced Function Calculator With Memory
* Alarm Clock With 16 Alarms
* BASIC Programming Language
* Weight of 1 lb. 15 ozs.

TIMELINEZ

TIMEXsinclair user group News-Magazine

SUPPORT FOR:

TIMEXsinclair's
1000, 1500, 2068

Sinclair's
ZX Spectrum+ 128K
Quantum Leap (QL)

Cambridge's Z88

FRONT PAGE

PRINTED USING sinclair QL PROFESSIONAL COMPUTER AND THIS PROGRAM.

DESK-TOP PUBLISHING
FOR THE SINCLAIR QL

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Back issues of **TIMELINEZ**, 7/83 thru 12/87 Contact Bill Miller at:

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6675 Clifford Drive
Cupertino, CA 95014

Issues 1/88 - present, contact your editor at **American Micro.**

The PDSE Library is now available to all; covering T/S1000-1500, T/S 2068, Spectrum and the QL.
Contact **American Micro** for further details.

RAMTOP cont.

Optional accessories include:

* Roget's II Electronic Thesaurus cartridge
* Termianl Card
* Medical and Legal Dictionaries
* Custom Applications Card
* 128K SRAM Memory Replacement Chip

As of this time, Laser has not released the price on the PC-4, however, the starting sales date for the laptop is scheduled for June/July 1990.

Why are we talking about a non-Sinclair design? For the simple reason that connecting to a QL is possible (works great with the Q2X program from Sector Software designed for the 288) plus Frank Davis of I.S.T.U.G. reports success with linking the PC-3 to his TS2068 via a null modem and a S2I0 board. To use the two serial ports on the Portuguese drives is being researched as well as linking up to the 288.

PROGRAM LISTER
by Timothy Swenson

Many times I have listed a program on the QL and had a line be printed on the perforation, so that if I wanted to pull the listing apart I would lose one entire line.

Having used a listing program with TurboPascal, I decided to write a short lister program for the QL. The program will read in any ASCII file. This means that you can list SuperBasic programs, Pascal programs, Quill print files (with no footers), etc.

Once the program starts running it will ask you for a file. It will handle any file with a proper drive name (MDV, FLP, or RAM). It will then ask you what typeface to use for printing. If you need to make copies of the program Bold Face will produce copy dark enough for most copiers. You can also get NLQ output for nice looking results.

You will then be asked if you want line numbers added in. This is for listings from languages that do not use line numbers, like Pascal. The program will then start printing.

The name of the file is printed at the top of each page. The page number is printed at the bottom of each page. On the last page the file name, file size, and total page numbers is printed out.

Hope you can find the program useful.

```
100 REMark ** LISTER by Timothy
    Swenson
110 CLS : INK 0: PRINT \\
120 PRINT "      P R O G R A M
    L I S T E R"
130 PRINT "         by Timothy
    Swenson"\\
140 PRINT "Enter Name of File to
    List :"
150 PRINT "  (Enter Drive Name,
    ie. MDV1_)"
160 INPUT infile$
170 OPEN_IN #4,infile$
180 PRINT \\"  Enter Print
    Option "
190 PRINT " ----------
    ----------"
200 PRINT "   1) Regular Print"
210 PRINT "   2) Bold Face"
220 PRINT "   3) Double Strike"
230 PRINT "   4) Italic"
240 PRINT "   5) Near Letter
    Quality"\\
250 INPUT "Enter choice : "
    ;p_opt
260 PRINT
270 INPUT "Line Numbers? (y/n) :
    ";a$
280 l_opt=0
290 IF a$="y" OR a$="Y" THEN
    l_opt=1
300 CLS
310 STRIP 4
320 AT 10,10: PRINT "  P R I N T
    I N G  "
330 STRIP 2
340 OPEN #3,ser1
```

```
350 PRINT #3,CHR$(27);"@";
360 PRINT #3,CHR$(27);
370  IF p_opt = 2 THEN PRINT #3
    ,"E";
380  IF p_opt = 3 THEN PRINT #3
    ,"G";
390  IF p_opt = 4 THEN PRINT #3
    ,"4";
400  IF p_opt = 5 THEN PRINT #3
    ,"x1";
410 LINEnum=1: page=0: count=1:
    size=0
420 header
430 REPeat loop
440 INPUT #4,in$
450 IF EOF(#4) THEN EXIT loop
460 IF l_opt=1 THEN
470   IF LINEnum<9 THEN PRINT
     #3,"  ";LINEnum;" ";in$
480   IF LINEnum>9 AND
 LINEnum<99 THEN PRINT #3,"
  ";LINEnum;" ";in$
490   IF LINEnum>99 THEN PRINT
     #3,LINEnum;" ";in$
500  END IF
510 IF l_opt=0 THEN PRINT #3,in$
520 LINEnum=LINEnum+1:
    count=count+1
530 IF l_opt=0 AND LEN(in$)>79
    THEN count=count+1
540 IF l_opt=1 AND LEN(in$)>75
    THEN count=count+1
550 size=size+LEN(in$)+1
560 IF count=57 THEN footer:
    header
570 END REPeat loop
580 PRINT #3
590 PRINT #3,"        File Size
    = ";size
600 PRINT #3,"        Total
    Pages = ";page
610 IF l_opt=1 THEN PRINT #3,"
          Total Lines = ";LINE
620 PRINT #3,CHR$(12);
630 CLOSE #3
640 CLOSE #4
650 REMark**********************
660 DEFine PROCedure header
670 PRINT #3
680 PRINT #3,"        File Name
    = ";infile$(6 TO)
690 PRINT #3: PRINT #3
700 page=page+1: count=1
710 END DEFine
720 REMark **********************
730 DEFine PROCedure footer
740 PRINT #3
750 PRINT #3,"
                  PAGE ";page
760 PRINT #3,CHR$(12);
770 END DEFine
```

HASH TABLE:

By Tim Swenson

What is hashing? What is a hash table? Well, a hash table is a data structure that allows one to store data for both fast insert and fast find. Each piece of data has a unique place in a table.

A Hashing function derives a number from the data that is from 1 to N, where N is the size of the table. The number is where the data is to be stored in the table.

Some pieces of data may have the same hash number. This means that two pieces of data may try to be in one place in the table. This is where a collision routine comes in.

A collision routine decides how to find an empty place in the table. The collision routine in the program listed below looks at the next highest place until an empty place is found. This is not a good collision routine, but it will do as an example.

The collision routine is also used when trying to find data in the table. When the wrong data is found at a place where something else should be, the collision routine searches the next highest place until the proper data is found. If an empty place is found first, then the data wanted is not in the table.

The hash routine used in the program takes the first and last characters in the string, adds them, and performs a MOD 31 to get a number between 1 and 31.

Hope this can be of use to you. If you have any questions feel free to ask.

```
100 REMark declare hash table
110 CLS
120 DIM a$(31,10)
```

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MAKE/MODEL (YOURS)_____

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PROGRAMMING INTERESTS ARE?
BASIC_____ASSEMBLY_____
FORTH_____MACHINE CODE_____
PASCAL_____C COMPILER_____

KNOWLEDGE: SOFTWARE_____HARDWARE_____

Mini File Server BBS
Supports: 300/1200 baud at 8,N,1
Password: -> n/a <-
Sysop: Steve Nichols
Phone#: (408) 253-2295

Netware Divisions
Supports: 300/1200/2400 baud at 7,1,E
Terminal: VT52
Sigop: Kevin Lueng
Phone#: (415) 753-5265

NOTE: The Mini File Server BBS has been supporting the Unix files system since it's start. It is strictly an U/D load BBS via X-modem or ASCII. For further information, please contact Bill Miller.

PUG

Peninsula User Group
311 Michelle Lane
Daly City, CA 94015
(415) 878-1773

Support for:
-TIMEXsinclair's 1000/1500/2068
-Cambridge Z88
-Sinclair's Spectrum +128K and QL

President: George Mockridge
Host: Walt Johnson

Meetings: Third Sunday of each month, 1:30 pm
Peninsula Hospital
1783 El Camino Real
Burlingame, CA

Dates:
May 20, 1990
June 17, 1990
July 15, 1990
August 19, 1990
September 16, 1990
October 21, 1990

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TIMEXsinclair Cambridge Silicon Valley Users
6675 Clifford Drive
Cupertino, CA 95014
(408) 253-3175

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Cupertino Library
Community Room
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Cupertino, CA 95014
Bring your equipment down access ramp Leading to bottom of circular building

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May 16, 1990 . . . . . 3rd Wednesday
June 20, 1990. . . . . 3rd Wednesday
July 18, 1990. . . . . 3rd Wednesday
August 15, 1990. . . . 3rd Wednesday

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7777 North Seminole Blvd.
Seminole, FL

Dates:
May 12, 1990
June 9, 1990
July 14, 1990
August 11, 1990

TSC Sig TCW

TIMEXsinclair Cambridge S.I.G.
The Computer Workshop
558 Cypress Avenue
Sunnyvale, CA 94086
(408) 739-3977

SIG Host: Mark Wahl

Meetings: Every Saturday morning at 10:00 am
Stanford University
Jordon Hall (in the Quad)
Room 380C (downstairs)

Dates:
May 5, 12, 19, 26, 1990
June 2, 9, 16, 23, 30, 1990
July 7, 14, 21, 28, 1990

```
130 REMark initialise hash table
140 FOR x=1 TO 31
150   LET a$(x)=""
160 NEXT x
170 PRINT "Do you want to "
180 PRINT "   A)dd "
190 PRINT "   F)ind"
200 INPUT x$
210 IF x$="A" OR x$="a" THEN GO
TO 240
220 IF x$="F" OR x$="f" THEN GO
TO 550
230 GO TO 170
240 PRINT "Input string to enter
to table"
250 PRINT "  Enter 0 to end"
260 INPUT in$
270 IF in$="0" THEN GO TO 170
280 LET count=0
290 IF LEN(in$)>10 THEN GO TO
   260
300 REMark find place in hash
table
310 LET length=LEN(in$)
320 LET first=CODE(in$(1))-32
330 LET last = CODE (in$
(length) )-32
340 LET hash=first+last
350 REMark find  hash MOD 31
360 LET hash=hash/31
370 LET hash=hash-INT(hash)
380 LET hash=hash*31
390 REMark is the place in the
table empty
400 IF a$(hash)<>"" THEN GO TO
   460
410 REMark yes, put string here
420   LET a$(hash)=in$
430   PRINT in$;" entered at
#";hash
440   GO TO 240
450 REMark no, so move down
table
460 LET hash=hash+1
470 LET count=count+1
480 REMark reached end, go to
beginning
490 IF hash>31 THEN LET hash=1
500 REMark is table full?
510 IF count>=31 THEN GO TO 530
520 GO TO 400
530 PRINT "Hash Table is full"
540 GO TO 170
550 PRINT "Enter string to find"
560 INPUT in$
570 LET count=0
580 REMark find place in table
590 LET length=LEN(in$)
600 LET first=CODE(in$(1))-32
610 LET last = CODE (in$
(length) )-32
620 LET hash=first+last
630 REMark find hash MOD 31
640 LET hash=hash/31
650 LET hash=hash-INT(hash)
660 LET hash=hash*31
670 REMark is it found?
680 IF a$(hash)<>in$ THEN GO TO
   730
690   PRINT in$;" found at
location #";hash
700   GO TO 170
710 REMark when we reach a empty
loc
720 REMark then not found
730 IF a$(hash)<>"" THEN GO TO
   760
740   PRINT in$;" not found at
all"
750   GO TO 170
760 LET count=count+1
770 LET hash=hash+1
780 REMark we have searched
entire table
790 IF hash>31 THEN LET hash=1
800 IF count>=31 THEN GO TO 690
810 GO TO 68
```